Response–Remarks

Claims 5, 7-11 and 13-16 are pending in the application.

Response to Rejection of Claims 5, 7, 8 and 13-15 under 35 USC § 102(b) as being anticipated by U.S. Patent No. 3,792,416 to Moulin

The Moulin '416 patent, which is in the electrical connector art, represents the precise problem of the prior art that the invention overcomes, namely, the possible wrinkling of the seal flange as explained in paragraphs in paragraphs [0002], [0003], [0004], [0005], [0006] and [0007] of the patent application.

In rejecting the claims, the Examiner states that the method of forming the device is not germane to the issue and consequently "molded" as a descriptor of the skirt has not been given any patentable weight. However, it is the shape of the molded skirt, not the forming process that distinguishes base claims 5, 8 and 13 over the Moulin '416 reference. More precisely, base claims 5, 8 and 13 recite that the "sealing surface has substantially the same shape as the interior surface of the cavity prior to insertion into the cavity".

The Examiner recognizes that the Moulin '416 patent does not disclose that the "sealing surface has substantially the same shape as the interior surface of the cavity prior to insertion into the cavity". See page 4, 5th paragraph of the Office Action mailed June 3, 2004.

However, the Examiner now holds that this claim element has not been given any patentable weight because the limitation is considered as a method step in an article claim. See the first paragraph on page 4 of the Office Action mailed August 27, 2004.

The claim element that the Examiner has ignored does not describe a method step. The claim element is a structural limitation that describes a physical characteristic of the sealing surface, i.e. the shape of the sealing surface which is not dependent on any particular method of achieving the shape. Describing the shape of the sealing surface in relation to the shape of the interior surface of the cavity does not alter the fact that the shape of the sealing surface is a structural limitation. Describing the shape of the sealing surface under a particular circumstance (i.e. before insertion into the cavity) does not alter the fact that the shape of the terminal is a structural limitation.

The concluding functional phrase, "so that the skirt deforms only a small amount to form a seal between the sealing surface and the interior surface of the cavity when the sleeve is subsequently inserted into the cavity" still does not alter the fact that the shape of the sealing surface is a structural limitation. Moreover, there is nothing inherently wrong with the use of functional language in drafting claims. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

It is axiomatic that a reference must disclose each and every element of the claim in order to anticipate the claim under 35 U.S.C. § 102. Since the Moulin '416 patent does not disclose a sealing surface that has substantially the same shape as the interior surface of the cavity prior to insertion into the cavity, base claims 5, 8 and 13 are not anticipated under 35 U.S.C. § 102.

This also applies to dependent claims 7, 14 and 15.

Response to Rejection of Claims 5, 7, 8 and 13-15 under 35 USC § 102(b) as being anticipated by U.S. Patent No. 5,540,450 to Hayashi et al

The Hayashi '450 patent discloses a rubber plug 3 for a water proof connector that is disposed between an electric wire 2 and a seal cylinder 1. An annular groove 14 divides the rear portion of the rubber plug 3 into an inner cylinder 11 and an outer cylinder 16. The inner cylinder 11 has an inner lip 12 seals against the electric wire 2. The outside diameter R2 of the rear end of the outer cylinder 16 is much larger than the inside diameter R1 of the seal cylinder 1. Hence when the rubber plug is inserted into the seal cylinder 1 See column 4, lines 14-16 and figure 1 of the Hayashi '450 patent. Thus the Hayashi '450 patent is more or less the same as the Moulin '416 patent that represents the precise problem of the prior art that the invention overcomes, namely, the possible wrinkling of the seal flange as explained in paragraphs in paragraphs [0002], [0003], [0004], [0005], [0006] and [0007] of the patent application.

The Hayashi '450 patent, like the Moulin '416 patent discussed above, does not disclose an arrangement where the "sealing surface has substantially the same shape as the interior surface of the cavity prior to insertion into the cavity".

As before, the Examiner holds that this limitation has not been given any patentable weight because the limitation is a method step in an article claim.

The limitation that the Examiner has ignored is not a method step. It is a structural limitation that describes a physical characteristic of the sealing surface, i.e. the shape of the sealing surface that is not dependent on any particular method of achieving the shape. Furthermore the fact that the claimed shape is a structural limitation is not altered by the shape of the sealing surface being described in relation to the shape of the interior surface of the cavity or being described prior to insertion into the cavity. Lastly, as above, the concluding functional explanation does not alter the fact that the claimed shape is a structural limitation either.

Consequently, base claims 5, 8 and 13 are not anticipated by the Hayashi '450 patent either.

This also applies to dependent claims 7, 14 and 15.

Response to Rejection of Claims 9-11 and 16 under 35 USC § 102(b) as being anticipated by U.S. Patent No. 5,540,450 to Hayashi et al

Method claims 9-11 and 16 have been rejected on the basis that the Hayashi '450 patent discloses a method having the step of "inserting a section of the structure including portion of the structure inserted through the sealing assembly into the cavity through the cavity opening so that the molded skirt is in sealing contact with the inside surface of the cavity wherein the molded skirt comprises a sealing surface that has substantially the same shape as the interior surface of the cavity prior to insertion into the cavity so that the skirt deforms only a small amount to form a seal between the sealing surface and the interior surface of the cavity" as required by claim 9. Emphasis added.

However as pointed out above, the sealing surface of the Hayashi '450 patent does not have substantially the same shape as the interior of the cavity prior to insertion into the cavity. As clearly stated in the Hayashi '450 patent and as clearly shown in figure 1 of the Hayashi '450 patent, the outside diameter R2 of the rear end of the Hayashi outer cylinder 16 is much larger than the inside diameter R1 of the seal cylinder 1. See column 4, lines 14-16 and figure 1 of the Hayashi '450 patent.

Consequently base method claims 9 and 16 are not anticipated by the Hayashi '450 patent under 35 U.S.C. § 102. This also applies to dependent claims 10 and 11.

Please re-examine claims 5, 7-11, and 13-16 in view of the foregoing remarks.

The Commissioner is hereby authorized to charge any fees or credit any overpayment in connection with this communication to our Deposit Account No. 50-0831. A duplicate copy of this sheet is enclosed.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to the Commissioner for Patents, P.O. Box 1450 Alexandria, Virginia 22313, on **November 23, 2004**.

Noelle Constantinou

Respectfully submitted,

REISING, ETHINGTON,
BARNES, KISSELLE, P.C.

Francis J. Fodale

Francis J. Fodale Reg. No. 20,824
P.O. Box 4390
Troy, Michigan 48099-4390
(248) 689-3500